

**REMEDIAL ACTION REPORT**  
**LOVE CANAL SITE**  
**LOVE CANAL AREA REVITALIZATION AGENCY**  
**MAINTENANCE AND TECHNICAL ASSISTANCE GRANT**  
**NIAGARA COUNTY**  
**NIAGARA FALLS, NEW YORK**

## **INTRODUCTION**

### Site Location

The Love Canal Landfill site (Site) is located in the City of Niagara Falls, Niagara County, New York. The fenced 70-acre Site, encompassing the original 16-acre hazardous waste landfill, is currently covered with a 40-acre clay/synthetic liner cap. A barrier drain and leachate collection and treatment system is in place and operating.

The 350-acre neighborhood which surrounds the Site is identified as the Emergency Declaration Area (EDA), of which there are seven separate and distinct areas. A small portion of the EDA is contained within the Town of Wheatfield.

### Overview

This remedial action report (RAR) documents the closeout of the maintenance and technical assistance (MATA) cooperative agreement that the Love Canal Area Revitalization Agency (LCARA) had in place with the Environmental Protection Agency (EPA) - Region 2. This RAR also documents the completion of the activities undertaken by LCARA to achieve the satisfactory redevelopment and reuse of the Love Canal EDA. LCARA also participated in the redevelopment of the area known as the 93<sup>rd</sup> Street School. This area was not specifically included as part of the EDA.

### Site Description

From 1942-53, the Site had been used by Hooker Chemicals and Plastics (now Occidental Chemical Corporation (OCC)) for the disposal of over 21,000 tons of various chemical wastes, including dioxins. Subsequently, the area near the covered landfill was extensively developed, including the construction of an elementary school and numerous homes. In the 1970's, during periods of extensive precipitation, the water table rose, bringing contaminated groundwater to the surface and with it increasing number of complaints from area residents regarding odors and residues throughout the neighborhood. Dioxin and other contaminants migrated from the Site to the sewers, which had outfalls into nearby creeks, and to the Niagara River.

As a result, two U.S. Presidential environmental emergencies were declared (1979 and 1980) and approximately 950 families were evacuated from a 10-square-block area surrounding the Love

Canal landfill. In 1980, in order to specifically identify the residential areas that were adjacent to the fenced Love Canal containment area, these neighborhoods were formally classified as the EDA. The Site is 1/4 mile north of the Niagara River.

In March 1985, EPA issued a Record of Decision (ROD) to remediate the sewers and the creeks in the Site area. The remedy included 1) hydraulically cleaning the sewers; 2) removal and disposal of the contaminated sediments; 3) inspecting the sewers for defects that could permit contaminants to migrate; 4) limiting access, dredging, and hydraulically cleaning the Black Creek culverts; and, 5) removing and storing Black and Bergholtz creeks' contaminated sediments.

In October 1987, EPA issued a second ROD which identified a remedy to address the destruction and disposal of the dioxin-contaminated sediments from the sewers and creeks.

In 1989, OCC, the United States and New York State (NYS) entered into a partial consent decree (PCD) to address some of the required remedial actions, required under a 1987 ROD, i.e., the processing, bagging, and storage of the creeks' sediments, as well as other Love Canal wastes, and the ultimate disposal of these wastes. In December 1995, a consent decree, i.e., cost recovery settlement between the United States and OCC, was lodged with the United States District Court. OCC agreed to reimburse the federal government's past response costs of \$129 million. In late 1999, all processed Love Canal waste materials were dispensed for final disposal.

In 1988, EPA issued the final Love Canal EDA Habitability Study (LCHS), a comprehensive sampling study of the EDA to evaluate risks posed by the Site. Subsequently, the New York State Department of Health (NYSDOH) completed its review of the LCHS and issued a Decision on Habitability, based on the LCHS findings. This Habitability Decision (HD) concluded the following: 1) that Areas 1, 2 and 3 of the EDA are not suitable for habitation without remediation but may be used for commercial and/or industrial purposes and 2) that Areas 4, 5, 6 and 7 of the EDA may be used for residential purposes, i.e., rehabilitation.

#### Love Canal Area Revitalization Agency

The Love Canal Area Revitalization Agency (LCARA) was created on June 17, 1980 by NYS Statute [Chapter 732 of the Laws of New York 1979 and Chapter 258 of the Laws of New York 1980]. LCARA's statutory purpose and directive was to stabilize and to revitalize the EDA to its best use. In the beginning, LCARA was provided with \$20 million in loans and grants from NYS and the Federal governments, including \$15 million from the Federal Emergency Management Agency (FEMA). The Federal/state agreement for the \$15 million loan and grant required that these monies be spent on the buyout of existing homeowners residing in the EDA., i.e., only for the acquisition of owner-occupied, single family residences that were owned by and were the primary residences of families or individuals as of May 5, 1980. These funds were not permitted to be used for the maintenance of properties, the acquisition of non-residential properties, residential moving expenses, construction of new homes, or any activities related to

the revitalization or repopulation of the EDA. The remaining \$5 million was used primarily for security, insurance, protective maintenance and the purchase of additional owner-occupied residences.

Section 312 of the Superfund Amendments and Reauthorization Act (SARA) of 1986 mandated that the Federal government provide an additional \$2.5 million to the State of New York or its agency, *i.e.*, LCARA, to continue the acquisition of private property in the EDA. Specifically, Section 312 of SARA authorized the acquisition of properties other than owner-occupied, single-family residences. This funding was intended to complete the overall buyout process for the entire EDA. This activity was covered under a separate cooperative agreement that LCARA had with EPA, the Property Acquisition Cooperative Agreement (PACA) grant.

Also, pursuant to Section 312, EPA and LCARA entered into a maintenance and technical assistance (MATA) cooperative agreement or grant. The MATA grant provided funding to LCARA for the maintenance of all LCARA-acquired properties and for the demolition of abandoned, vacant properties. The MATA grant was funded as a remedial action to provide LCARA with funds to maintain the vacant properties while, at the same time, LCARA was revitalizing properties in the habitable portion of the EDA (Areas 4-7) under other non-EPA funding mechanisms. Since the MATA grant was classified as a remedial action, EPA provided 90% of the total budget with the State of New York providing the remaining 10%. During the final years of the project, funds from the Settlement with OCC were utilized for funding the Cooperative Agreement; those funds did not require a cost share from the State. As indicated above, EPA's grant to LCARA could not be applied to LCARA's actual rehabilitation efforts of the vacant EDA homes and other properties in the habitable areas nor to the efforts necessary for the sale of said properties.

In June 1989, shortly after LCARA received the MATA grant from EPA, the Land Use Advisory Committee (LUAC), set up by the NYSDOH, was tasked to perform a land use study based on the findings of the LCHS. The LUAC was a community-based group of individuals representing the needs and desires of the Love Canal residents, specifically, and of the City of Niagara Falls, in general.

The final LUAC study was presented for implementation to LCARA. LCARA subsequently hired Saratoga Associates to use the results of the LUAC study and develop the overall Love Canal Area Master Plan (LCAMP) for the EDA. In June 1990, LCARA issued the LCAMP. The plan provided a preferred alternative as a guide for future land use within all areas of the EDA. A full areawide map was created to identify each of the seven EDA areas and the proposed (commercial/industrial/residential) development and parkland for each of the areas, as warranted. The rehabilitation and redevelopment of the Love Canal EDA was the foremost charge of LCARA in order to provide the City of Niagara Falls with a renewable tax base, as well as new residential and commercial opportunities and development.

## CHRONOLOGY OF EVENTS

- ▶ June 1980 LCARA created through NYS statute and began acquiring real property in the EDA
- ▶ October 1986 Passage of Superfund legislation [Superfund Amendments and Reauthorization Act] with Section 312 (d) mandating the maintenance of property
- ▶ October 1987 New York State Department of Environmental Conservation (NYSDEC) initiated the Home Maintenance Program with LCARA
- ▶ May 19, 1989 LCARA receives EPA MATA grant to perform home maintenance and for technical assistance; project/budget period begins
- ▶ May 2003 Grant Closeout
- ▶ August 2003 LCARA dissolved by NYS Statute, as executed by the Governor of NYS.

## DESCRIPTION OF THE MATA PROCESS [Replaces Construction Activities]

Each year from the beginning of the grant, LCARA would submit an application for financial assistance. In its application, LCARA would provide an overall project description and budget that identified both the maintenance and technical activities that LCARA performed during the previous year and those activities which would be performed during the upcoming or new grant year. This application also included a background description of the agency's operations.

In its application, LCARA would also identify all the personnel, salaries and other administrative costs, *i.e.*, health benefits, etc., that would be applied to the MATA grant. In particular, the maintenance department would be a substantial part of the MATA budget. LCARA also developed a percentage assessment of how time would be charged by personnel, since some of the same personnel would also be spending time on the rehabilitation efforts or performing other functions outside the scope of the MATA grant. In those cases, a percentage of each employee's time would be charged to the MATA grant's budget for that period. That methodology was approved by EPA.

Maintenance was defined to be an expenditure of resources which were necessary and appropriate to stabilize and sustain the intrinsic value and conditions of LCARA-owned properties within the EDA, by engaging in protective and preventative upkeep and conservation. Such maintenance specifically excluded any expenditure of funds or resources utilized to rehabilitate LCARA-owned properties within the EDA.

Maintenance activities included but were not necessarily limited to the following:

- boarding walls and roof openings in buildings
- maintaining dry interior conditions in buildings through heating, sump pumps and caulking/sealing
- removal/stripping of water-damaged surfaces from building exteriors
- cleaning and/or installing gutters or downspouts
- maintaining lawns/yards, including grass cutting and removal of detritus, vegetation and other debris which may cause building deterioration or unsafe conditions
- ensuring positive site drainage at building perimeters
- providing security measures
- demolition of buildings/structures within the EDA on a case-by-case basis. No demolition could occur without receiving prior joint approval of NYS and EPA.

Technical assistance costs were defined as those required primarily for the planning and disposition of LCARA-owned properties, which were not included in the rehabilitation or sales effort within the habitable area. Technical assistance could also be provided to assist in planning activities necessary to implementing habitability and land-use decisions. Also, included under technical assistance were costs associated with enhancement of those LCARA-owned properties which were formerly maintained through the maintenance program but have been rehabilitated and sold. Technical assistance also included approvable costs under administration, accounting, fringe benefits, equipment (purchase or rental), supplies, office overhead etc. At the conclusion of LCARA's overall operations under the MATA grant, all equipment purchases made under the Federal program were dispensed according to the requirements under Federal Superfund cooperative agreement regulations.

As indicated above, the MATA grant provided funds for the demolition of unoccupied properties within the EDA. These properties were demolished, depending on their structural integrity. Many of these homes were demolished because of deteriorated nature of the house and/or garage and the resultant unsafe conditions on the properties. It was important that the EDA remained a safe area for children by eliminating potential dangerous conditions of dilapidated homes and garages.

Since most of the properties purchased by LCARA in the non-habitable areas (EDA Areas 1,2 and 3) were purchased with EPA funds under the PACA grant, EPA and the State of New York were required to inspect those proposed properties slated for demolition and provide approval for said demolition. Ultimately, demolition was approved for properties within the non-habitable area without an associated inspection, since vacant land in the non-habitable was deemed to be more marketable for sale if the land did not contain abandoned, vacant houses scattered throughout the area. Cleared, vacant land is much more attractive to potential developers. The value of the property with scattered abandoned houses on it was deemed not to have any resale value for future development. The demolition of the properties in the non-habitable area allowed for successful sale and ultimate redevelopment of the resultant vacant lands. The final remaining parcels of vacant land in EDA Areas 2 and 3 were sold in August 2003. There were restrictions



attached to the deeds of these properties (non-habitable portion) to prevent future residential development without remediation of the land.

By December 1999, the majority of the property demolition throughout the EDA was completed with over 300 homes plus garages and other properties demolished. It was eventually determined that the 93<sup>rd</sup> Street School building could not be safely rehabilitated for reuse. As such, it was also demolished in March 2000. The resultant vacant property has now been converted to a park and local ball fields for the EDA community.

LCARA rehabilitated and sold 239 properties, including some commercial properties, during their operational period. Most of these rehabilitated properties were located in EDA Areas 4 and 5.

## **PERFORMANCE STANDARDS AND CONSTRUCTION QUALITY CONTROL**

LCARA implemented the MATA grant, as outlined in Part (d) of Section 312 of SARA, to its fullest extent. For 14 years, LCARA performed the MATA activities with oversight by EPA and NYS.

### Lessons Learned

The maintenance aspect of the MATA grant was pretty straightforward. LCARA maintained properties in a reasonable physical condition where subsequent rehabilitation efforts could be performed. More effort was made to keep homes in the habitable areas, *i.e.*, those deemed under the HD to be suitable for residential use, in better saleable condition.

The maintenance of LCARA-owned properties included attending to the basics, such as heating, grass cutting and outside lighting. As best as possible, LCARA ensured that potential vandalism was kept to a minimum; this was particularly true in the non-habitable areas, where actual rehabilitation efforts were not being conducted, since the homes there could not be sold for residential use.

Defining the technical assistance part of the MATA grant was more difficult. EPA revisited this aspect to the MATA agreement with LCARA many times over the years in order to ensure that every effort was being by LCARA to ensure that the necessary mechanisms were in place to be able to complete the various planning activities necessary to establish an implementable EDA redevelopment process. Technical assistance involved a variety of support activities: administrative, planning, accounting and legal. Technical assistance was also provided to assist in the marketing of LCARA-owned properties in the non-habitable areas. Being able to define technical assistance earlier in the grant process may have alleviated any confusion about approvable technical assistance matters. It was important for EPA to refrain from funding any

LCARA activities which could be construed as rehabilitation. Sometimes this line was very fine.

In 1993, in an effort to focus LCARA's charge on overall redevelopment efforts, EPA requested that LCARA prepare a statement or essay of purpose to clarify and specify what it proposed to do over the remaining years of the MATA grant as to future redevelopment plans for the EDA. Specifically, EPA required the essay to include the following elements:

- Ultimate goal which would include the successful completion of the MATA project
- LCARA's long-range plans to meet the ultimate goal
- LCARA's schedule for achieving the long-range plan
- the relationship of maintenance and technical assistance to LCARA's goals in terms of fixed costs
- the technical basis to fixed maintenance and technical assistance costs.

These elements were presented to EPA according to each of the Areas of the EDA, both the habitable portion and the non-habitable portion. LCARA also provided a full budget breakdown for five years, until 1999. The program and fiscal projections were distinctly separated into maintenance activities and technical assistance activities. This made it easier for EPA to assess the scope for the MATA grant from both a programmatic and fiscal view.

Over the course of the grant, LCARA reduced its maintenance-related costs and increased its technical assistance costs. This was expected as time came for the necessary redevelopment of the vacant lands in EDA Areas 1, 2 and 3. This was apparent during the period of increased interest in improving the EDA infrastructure and aesthetic aspects necessary for a fully revitalized EDA.

In order to continue to be reimbursed under the MATA grant, EPA mandated that LCARA specifically highlight those activities which were directly related to the matters covered by the MATA grant. It is clear that preparation of this statement or essay of purpose earlier in the grants' process would have alleviated any confusion about how LCARA's MATA activities would result in satisfactory EDA redevelopment and reuse.

## **FINAL INSPECTION**

On June 12, 2003, as part of EPA's five-year review process, a Site inspection was conducted. The Site inspection team included the following personnel: Damian Duda (Site RPM), John Malleck (Section Chief) and Mike Basile (CIC) from EPA, Brian Sadowski and Jeff Konsella from NYSDEC, Frank Cornell, Executive Director of LCARA and Don Tubridy and Brian Downie from Miller Springs Remediation Management, who prepare the Annual Operation and Monitoring Reports.

In addition to inspecting the Love Canal plant operations, the Site inspection team also performed a drive-through of the revitalized EDA (Areas 1-7) neighborhoods, assessing LCARA's redevelopment efforts. The area called Black Creek Village (EDA Areas 4 and 5) was seen to be a fully revitalized and vibrant community. It was also noted that new senior citizen housing had been constructed in the area known as Summit Park Village (EDA Area 7). The former 93<sup>rd</sup> Street School site was also observed, and the newly created community baseball fields and general park area was assessed as were other park areas created within the EDA. The non-habitable EDA Areas 1-3 were observed to be ready for commercial, industrial or parkland development. These areas, subject to extensive demolition and clearing, are now in the hands of private developers.

**CERTIFICATION THAT REMEDY IS OPERATIONAL AND FUNCTIONAL [See Performance Standards section]**

**OPERATION AND MAINTENANCE**

Although specific continued operation and maintenance for this RAR is not applicable, in summary, the 1986 SARA amendments required that EPA provide funding for the maintenance of properties in the EDA and provide LCARA technical assistance for the revitalization of the EDA. This was fully accomplished through the MATA cooperative agreement.

Most of the properties in the seven areas of the EDA are in the hands of homeowners and/or developers. A portion of the EDA, including all of EDA Area 1, is being managed by the City of Niagara Falls. Any future activities or actions in the EDA will be undertaken by the residential community, the City of Niagara Falls or private developers.

LCARA's responsibilities in the EDA have ceased, since the Agency was formally disbanded by NYS statute on August 27, 2003.

**SUMMARY OF PROJECT COSTS**

Under the budget period from May 1989 until the final MATA grant closeout in May 2003, LCARA spent approximately \$6,378,025 in Federal grant monies, in accordance with the final Financial Status Report.